To: Nakatani Foundation

Nakatani RIES 2026 Final Report

Your name: Aparna Srinidhi Jagannathan

Your university: Kyoto University

Host lab in Japan: Suzuki Lab

Research mentor(s): My PI was Dr. Jun Suzuki and my mentor was Misato Ishikawa

Meaning and Impact of the Nakatani RIES Fellowship: How would you describe the meaning and impact of the Nakatani RIES Fellowship on you?

I am incredibly grateful to the Nakatani RIES Fellowship for giving me the incredible opportunity to spend a summer doing research at Kyoto University – I loved being able to work on a meaningful project and got to learn so many new experimental techniques. I also got to meet so many amazing people that I will keep in touch with well beyond this program. This experience has only solidified my love for research and working in the lab and has inspired me to continue with pursuing a Masters' and PhD in bioengineering post-graduation :)

Please complete the following sentences with potential applicants to the Nakatani RIES Fellowship as the intended audience.

- My favorite experience in Japan was...
    - Going to karaoke in Hyakumamben (Kyoto) with the other two undergrad interns in my lab after my last day of research
- Before I left for Japan, I wish I had...
    - Spent more time learning basic phrases for restaurants and navigating train stations (specifically, I'm vegetarian, so knowing how to ask if something was vegetarian/had meat in it would have been very useful)
- While I was in Japan, I wish I had...
    - Spent more time traveling to nearby cities and researching important summer events/festivals instead of doing it all in the last couple weeks

Research Internship Overview: Provide an overview of your research project and your experience during the internship. How did the project relate to your current or future academic interests? What was it like to work in an international research setting?

What did you learn from your research experience this summer, and how has it influenced, or how do you expect it to influence, your future academic path or research interests?

My research project this semester was focused on identifying some of the steps in the synthesis pathway of a novel antigen found in human leukemia cells. Some of the techniques I used for this were CRISPR-Cas9, Western blotting, and flow cytometry. I'd learned about these methods in my cell physiology class last semester, but this was the first time I was using them myself, which was really cool to see. Working in an international research setting was particularly interesting because my lab specifically had students from all around the world, not just Japan, so I got to interact with people from countries such as Germany, Taiwan, Singapore,

and South Africa, who all had very different academic and cultural backgrounds. One of the main takeaways from my research experience this summer was the importance of understanding the why's behind each of the steps in an experiment; knowing the reasoning behind each allows you to troubleshoot more effectively when something goes wrong instead of just redoing the entire experiment without understanding what happened. Working in the Suzuki Lab made me realize how much I enjoyed wet-lab work and designing my own experiments. Post-graduation, I hope to continue with my Master's and complete a PhD in bioengineering afterwards.

Lab Environment Overview: Describe the lab environment and the personality and working style of your research group. What was it like to work with your research mentor(s)? How would you describe the overall group dynamic in the lab?

People in my lab were generally pretty introverted but very kind – they were more than willing to support me and a couple of them even took time out of their own schedules to help troubleshoot some of my failed experiments, which I really appreciated. My PI, Dr. Suzuki, was incredibly supportive and met with us weekly for progress reports; he provided great feedback on my experiments and asked questions that helped me better understand the purpose of what I was doing and informed my future research. My mentor, Ishikawa san, was one of the best I've ever had – she was involved throughout my research journey and trusted me to work independently while still providing guidance when I needed. She was also very quick with communicating her feedback, letting me know immediately when I needed to improve on something quality-wise or when I was doing something incorrectly.

Daily Life in Japan: Describe your daily life in Japan. You may include the people you interacted with outside the lab, food, your housing and living experience, travel around Japan, challenges you faced, and rewarding experiences you had over the summer.

I would usually come to the lab sometime between 7 and 9AM, where I'd either start the day with an experiment or passaging my cells, or in the case of Tuesdays and Thursdays, attend the weekly journal club/monthly progress report meeting. I'd usually get an early lunch with my mentor around 11 and then return to experiments until around 6 PM. If experiments ended early, I'd work on desk-related work, which might involve reading papers or planning out future experiments, or filling out my lab notebook. On weekends, I'd usually have smaller lab-related tasks on one or both days and after finishing those, explore the city either by myself or with the other two undergrad interns in my lab, or go on local trips, such as to Uji, Nara, or Osaka.

Experiences with Japanese Culture: Describe your most meaningful experiences with Japanese culture. These could include program activities, interactions with people in your lab, or experiences from daily life that you feel illustrate aspects of Japanese culture or values. What did these experiences teach you about Japan? What did they teach you about yourself?

People are very polite here, especially in buses – they are always willing to give up their seats for those who need them, and bus drivers are exceptionally patient when compared to those in the US. There is also a lot of trust in systemic integrity – despite the lack of trash cans, there is almost no litter in the streets, and nobody jaywalks no matter how short the crosswalk is or how little traffic there might be. As someone who greatly dislikes pollution and lack of road safety, seeing Japan's treatment of both problems brought me hope that one day we can bring these systems to the US as well.

Returning to Japan: Do you plan or hope to return to Japan in the future? If so, what would you like to do? What would you need to make that happen?

Yes, I'd like to return for grad school if possible to do my MS and a possible PhD afterward. I would want to apply to scholarships for international students to make this happen.